



Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Sugar Creek

Water Body Segment at a Glance:

County:	Randolph
Nearby Cities:	Moberly and Huntsville
Length of impaired segment:	5 miles
Pollutant:	Low Dissolved Oxygen
Source:	None Given
Water Body ID:	0686



Scheduled for TMDL development: 2015

Description of the Problem

Designated beneficial uses of Sugar Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health (Fish Consumption)

Use that is impaired

- Protection of Warm Water Aquatic Life

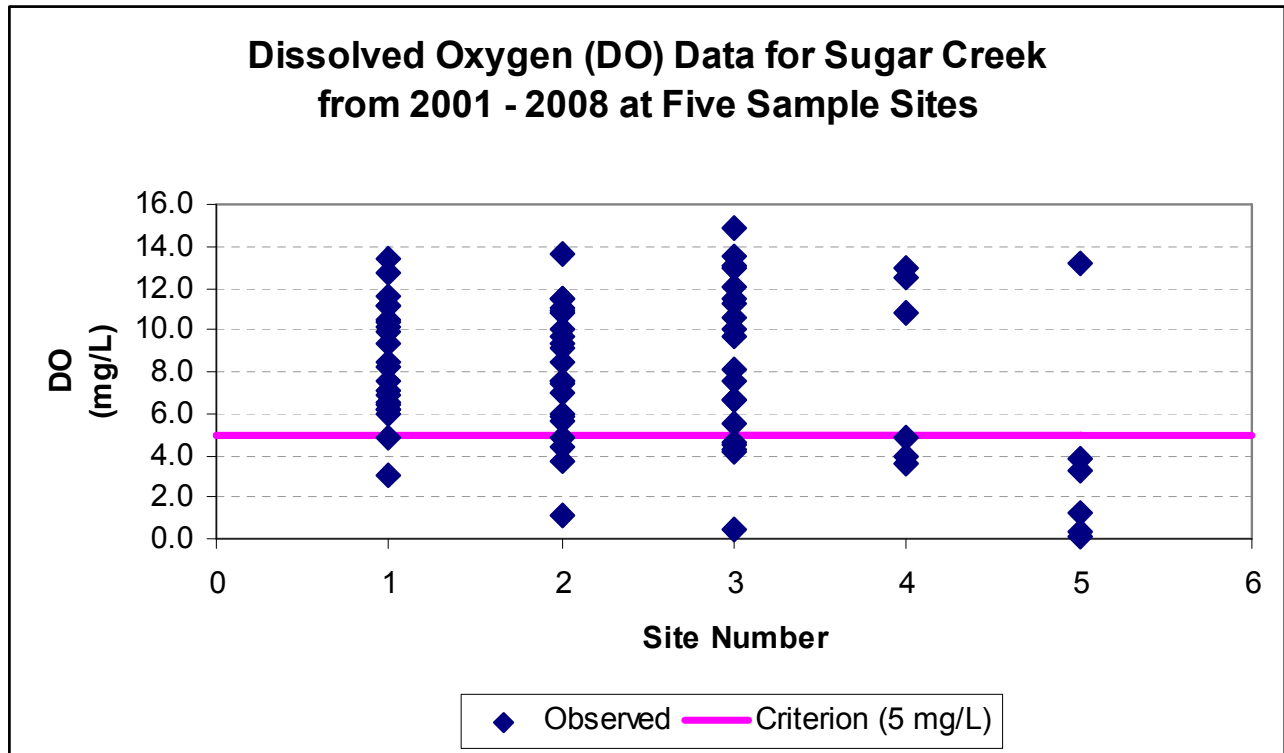
Standards that apply

- In the Missouri Water Quality Standards, found in 10 CSR 20-7.031 Table A, the criterion for dissolved oxygen, or DO, in streams is a minimum of 5 mg/L (milligrams per liter or parts per million).

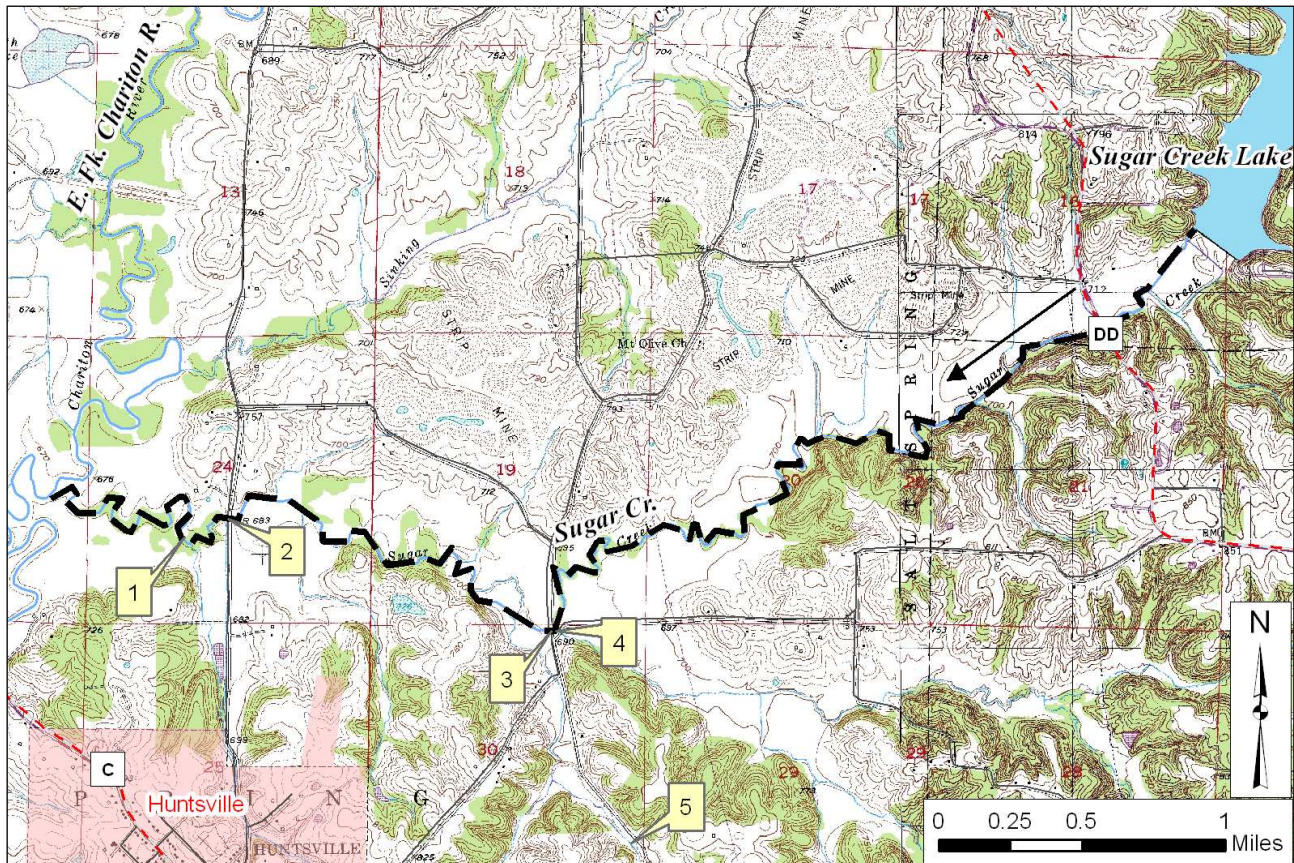
Background information and water quality data

Sugar Creek is a small prairie creek in central Missouri. It flows west between Moberly and Huntsville to join the East Fork of the Chariton River. Southwest of Moberly, the creek has been dammed to form Sugar Creek Lake. A TMDL has already been written for low pH (acidity) in Sugar Creek. It was approved Dec. 19, 2002. Water quality conditions in Sugar Creek are still not protective of aquatic life, as the dissolved oxygen is too low throughout the length of the creek, from the Sugar Creek Lake dam to the creek's mouth (see map on last page). Dissolved oxygen is important as many aquatic organisms require high levels of oxygen to survive. The dissolved oxygen impairment is based on data gathered by the U.S. Geological Survey in 2003 and 2004 and by the department from 2001-2008. For dissolved oxygen, if more than 10 percent of measurements

in a water body fail to meet the water quality criterion that water body is judged to be impaired. In the case of Sugar Creek, 14 of 70 samples (20 percent) did not meet the water quality criterion. It is not known what is causing the dissolved oxygen to be low.



Map showing Sugar Creek in Randolph County, Mo., and sampling sites



— — — Impaired Segment

—————> Direction of flow

Sample Sites

- 1 – Sugar Cr. Below Calfee tributary
- 2 – Sugar Cr. 0.1 mile above Calfee tributary
- 3 – Sugar Cr. 0.2 mile above Huntsville Gob trib.
- 4 – Sugar Cr. ab. CR 95
- 5 – Lower Huntsville Gob mine seep

For more information call or write:

Missouri Department of Natural Resources

Water Protection Program

P.O. Box 176, Jefferson City, MO 65102-0176

1-800-361-4827 or 573-751-1300 office

573-522-9920 fax

Program Home Page: www.dnr.mo.gov/env/wpp/index.html